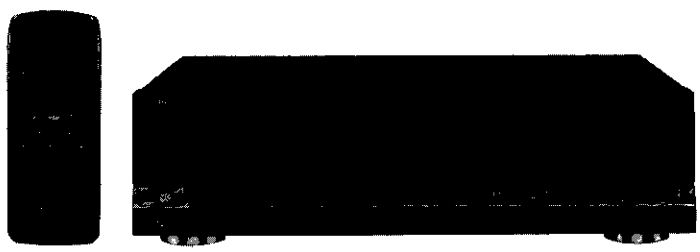
Technics

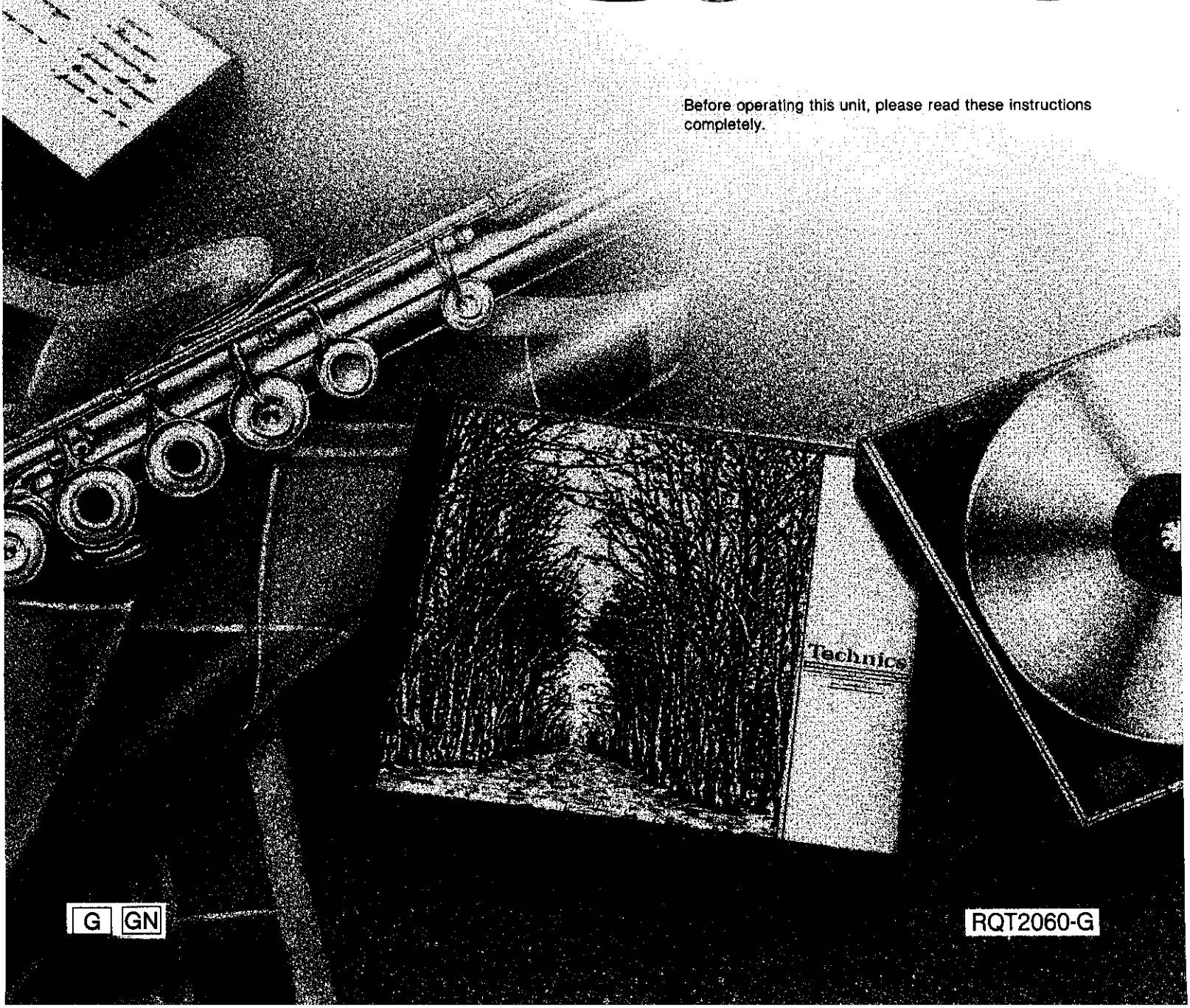
STEREO SYNTHESIZER RECEIVER

SA-GX130D

Operating Instructions



Before operating this unit, please read these instructions completely.



G GN

RQT2060-G

Dear Stereo Fan

We want to thank you for selecting this product and to welcome you to the growing family of satisfied Technics product owners around the world.
We feel certain you will get maximum enjoyment from this new addition to your home.
Please read these operating instructions carefully, and be sure to keep them handy for convenient reference.

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For areas except Australia and N.Z.

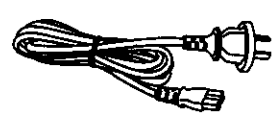
CAUTION:

The AC voltage is different according to the area.
Be sure to set the proper voltage in your area before use.
(For details, please refer to the page 8.)

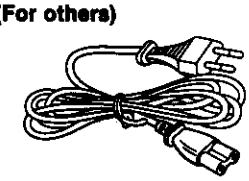
THIS TUNER/RECEIVER IS CAPABLE OF RECEIVING THE NEW AM STEREO BROADCASTS FROM THE AM BAND RADIO STATIONS. HOWEVER LIKE MANY TUNERS AND RECEIVERS CURRENTLY AVAILABLE ON THE MARKET IT WILL REPRODUCE THIS AM STEREO SIGNAL ONLY IN AM MONO, WHICH, IN EFFECT, IS OF NO LESSER QUALITY THAN YOUR EXISTING AM MONO TUNER/RECEIVER.

Accessories

- AC power supply cord 1
  (For Australia and N.Z.)

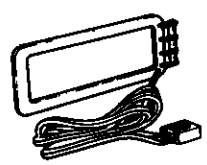


(For others)



- FM indoor antenna 1

- AM loop antenna 1



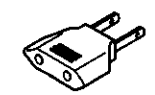
- AM antenna holder 1

- Screws 2

- Remote control transmitter (RAK-SA011XH) 1

- Batteries 2

- Power plug adaptor 1
  (For areas except Australia and N.Z.)



Suggestions for Safety

■ Use a standard AC wall outlet

1. **Use from an AC power source of high voltage, such as for an air conditioner, is very dangerous.**
   There is the possibility that a fire might be caused by making such a connection.
2. **A DC power source cannot be used.**
   Be sure to check the power source carefully, especially on a ship or other place where DC is used.

■ Grasp the plug when disconnecting the power supply cord

1. **Wet hands are dangerous.**
   A dangerous electric shock may result if the plug is touched by wet hands.
2. **Never place heavy items on top of the power supply cord, and never force it to bend sharply.**

■ Place the unit where it will be well ventilated

Place this unit at least 10 cm (4") away from wall surfaces, etc. Be careful that curtains and similar materials do not obstruct the ventilation holes.

■ Avoid places such as the following:

In direct sunlight or in other places where the temperature is high.
In places where there is excessive vibration or humidity.
Such conditions might damage the cabinet and/or other component parts and thereby shorten the unit's service life.

■ Be sure to place the unit on a flat, level surface.

If the surface is inclined, a malfunction may result.

■ Never attempt to repair or reconstruct this unit

A serious electric shock might occur if this unit is repaired, disassembled or reconstructed by unauthorized persons, or if the internal parts are accidentally touched.

■ Take particular care if children are present

Never permit children to put anything, especially metal, inside this unit. A serious electric shock or malfunction could occur if articles such as coins, needles, screwdrivers, etc. are inserted through the ventilation holes, etc. of this unit.

■ If water is spilled on the unit

Be extremely careful if water is spilled on the unit, because a fire or serious electric shock might occur. Immediately disconnect the power cord plug, and consult with your dealer.

■ Avoid spray-type insecticides

Insecticides might cause cracks or "cloudiness" in the cabinet and plastic parts of this unit. The gas used in such sprays might, moreover, be ignited suddenly.

■ Never use alcohol or paint thinner

These and similar chemicals should never be used, because they might cause flaking or cloudiness of the cabinet finish.

■ Disconnect the power supply cord if the unit will not be used for a long time

If the unit is left for a long time with the power ON, this will not only shorten its useful operation life, but may also cause other troubles.

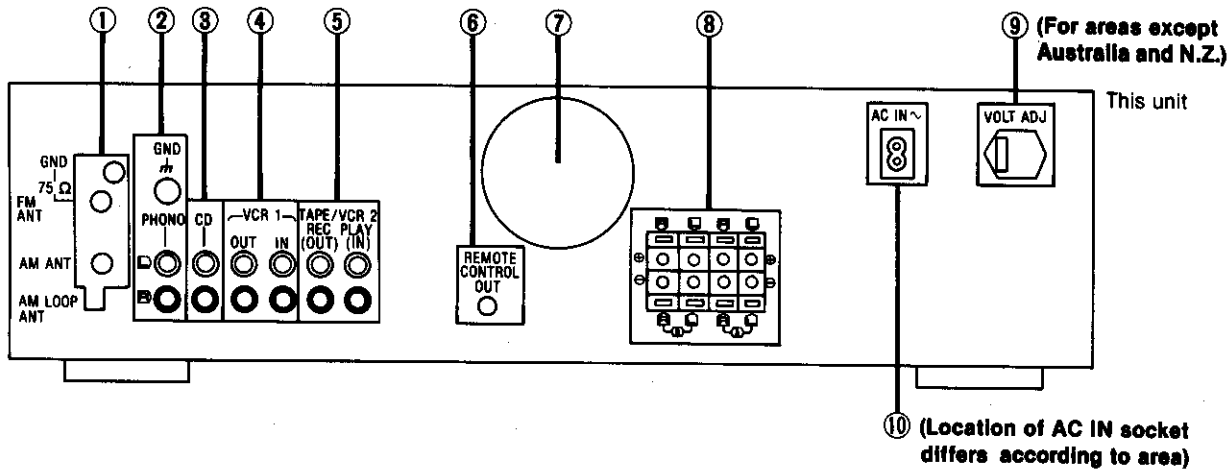
■ If trouble occurs

If, during operation, the sound is interrupted or indicators no longer illuminate, or if abnormal odor or smoke is detected, immediately disconnect the power cord plug, and contact your dealer or an Authorized Service Center.

Connections

Caution:
Do not place books, etc., on top of this unit so that the heat radiation vents remain unblocked.

Stereo connection cable
(not included)
White (L)
Red (R)

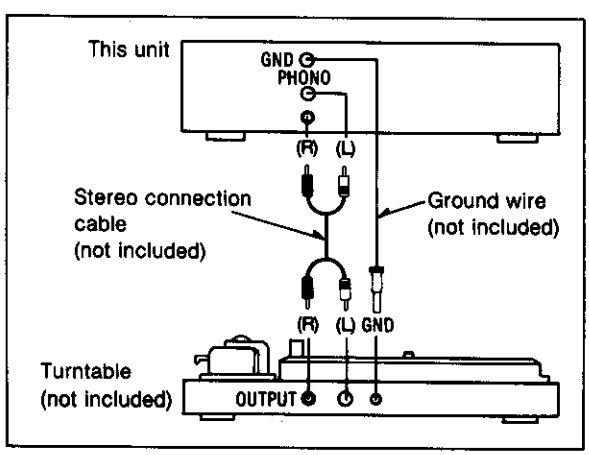


① Antenna connection terminals

See pages 6–7 for detailed information.

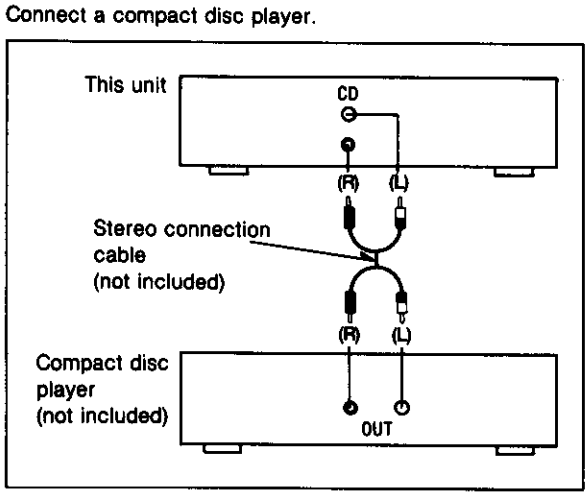
② "PHONO" terminals

Connect a turntable only. Do not connect any other sound source to these terminals.



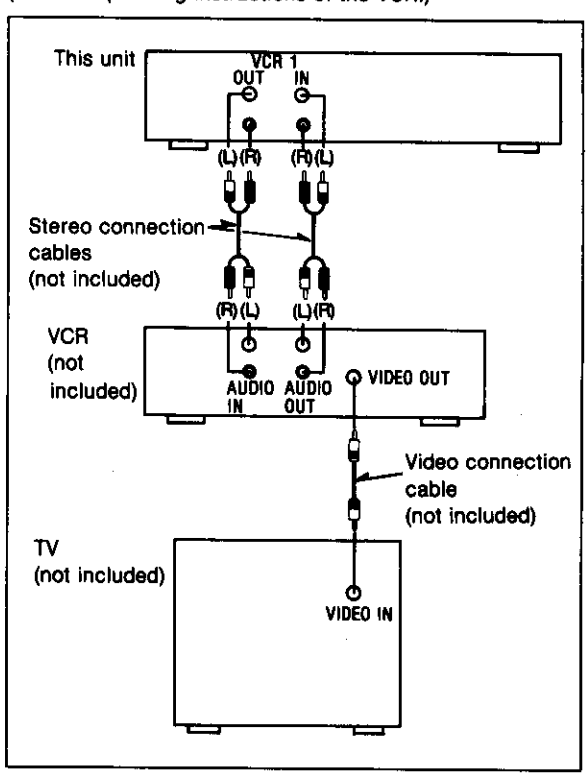
③ "CD" terminals

Connect a compact disc player.



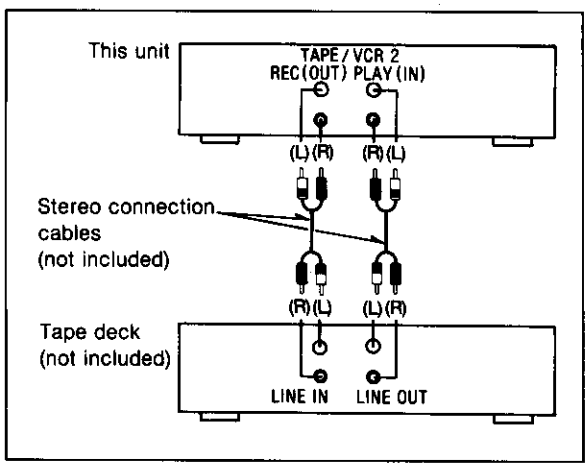
④ "VCR 1" terminals

Connect a VCR.
(See the operating instructions of the VCR.)



⑤ "TAPE/VCR 2" terminals

Connect a tape deck or second VCR.

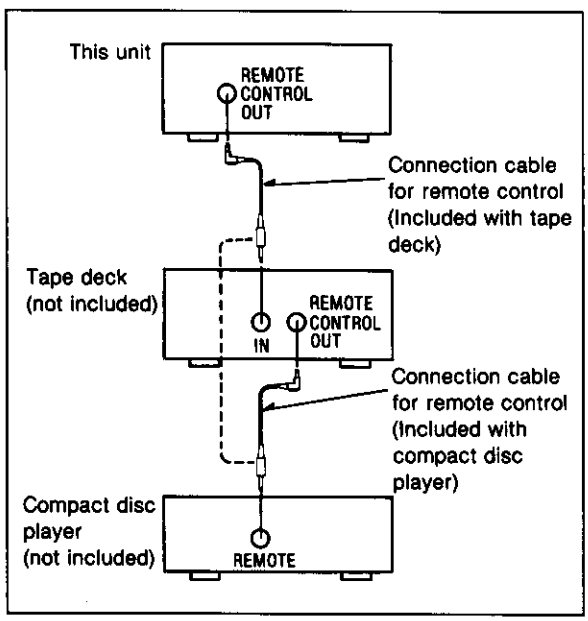


⑥ Remote control OUT terminal (REMOTE CONTROL OUT)

This terminal can be used only with Technics components which have the appropriate remote control terminal. (Consult your dealer for details.)
Proper connection with remote control connection cables SJP2257T will allow control of some functions from this unit's remote control transmitter. (See pages 20–22 for details.)

Connect to a tape deck and/or compact disc player as shown below.

If a tape deck is not being used, the compact disc player can be connected directly (dotted line).


This unit
REMOTE CONTROL OUT
Connection cable for remote control (Included with tape deck)
Tape deck (not included)
REMOTE CONTROL IN
OUT
Connection cable for remote control (Included with compact disc player)
Compact disc player (not included)
REMOTE

Note:
For a compact disc player with a remote control sensor the above connection is not necessary.

⑦ Cooling fan

The cooling fan operates at high output power levels only.

⑧ Speaker connection terminals

See page 8 for detailed information.

(For areas except Australia and N.Z.)

⑨ Voltage selector (VOLT ADJ)

See page 8 for detailed information.

⑩ AC IN socket (AC IN)

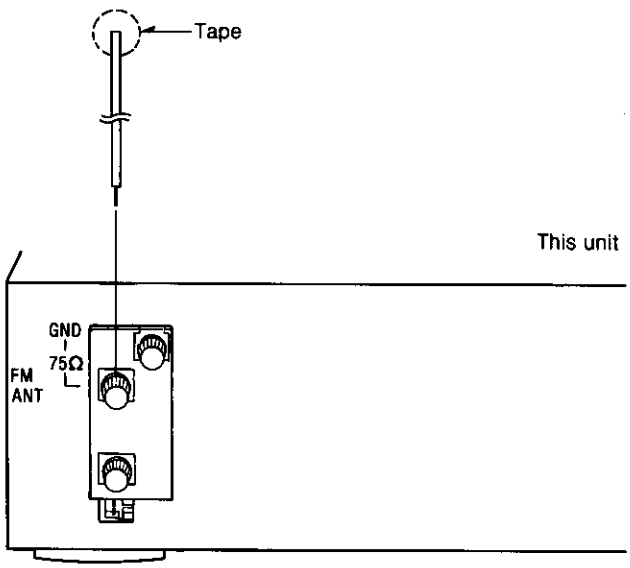
See page 8 for detailed information.
Note:
Location of AC IN socket differs according to area.

Connections (continued)

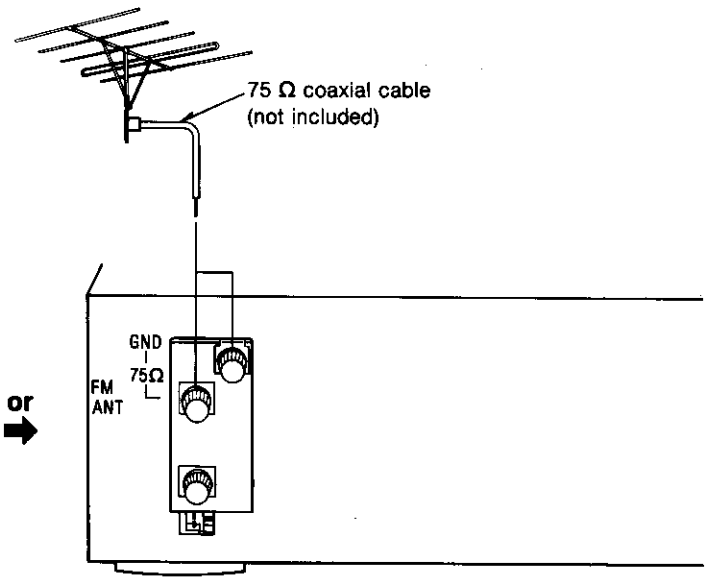
FM antenna connections

Note: An outdoor antenna should be installed by a competent technician only.

FM indoor antenna
(included)



FM outdoor antenna
(not included)



or

FM indoor antenna (included)

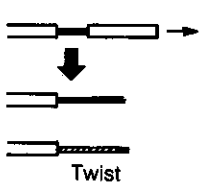
Attach to a wall (using a tape) facing in the direction of best reception.
For best reception sound quality:
An FM outdoor antenna is recommended.
Note:
Disconnect the antenna if an FM outdoor antenna is installed.

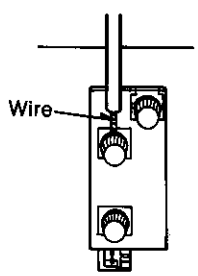
FM outdoor antenna (not included)

If the FM indoor antenna does not provide satisfactory reception, an outdoor antenna should be used.
The outdoor antenna may be required in a mountainous region, or if this unit is located inside a reinforced-concrete building, etc.

How to connect an FM indoor antenna

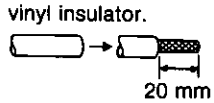
① Pull off the plastic on the tip of the antenna wire.
② Twist the wire and connect as shown below.



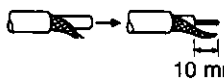


How to connect a 75 Ω coaxial cable

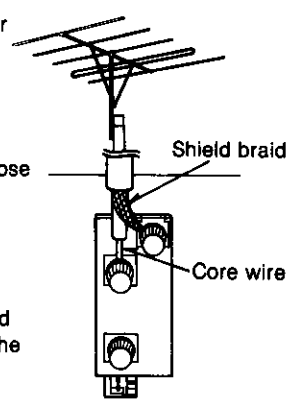
① Remove a piece of the outer vinyl insulator.



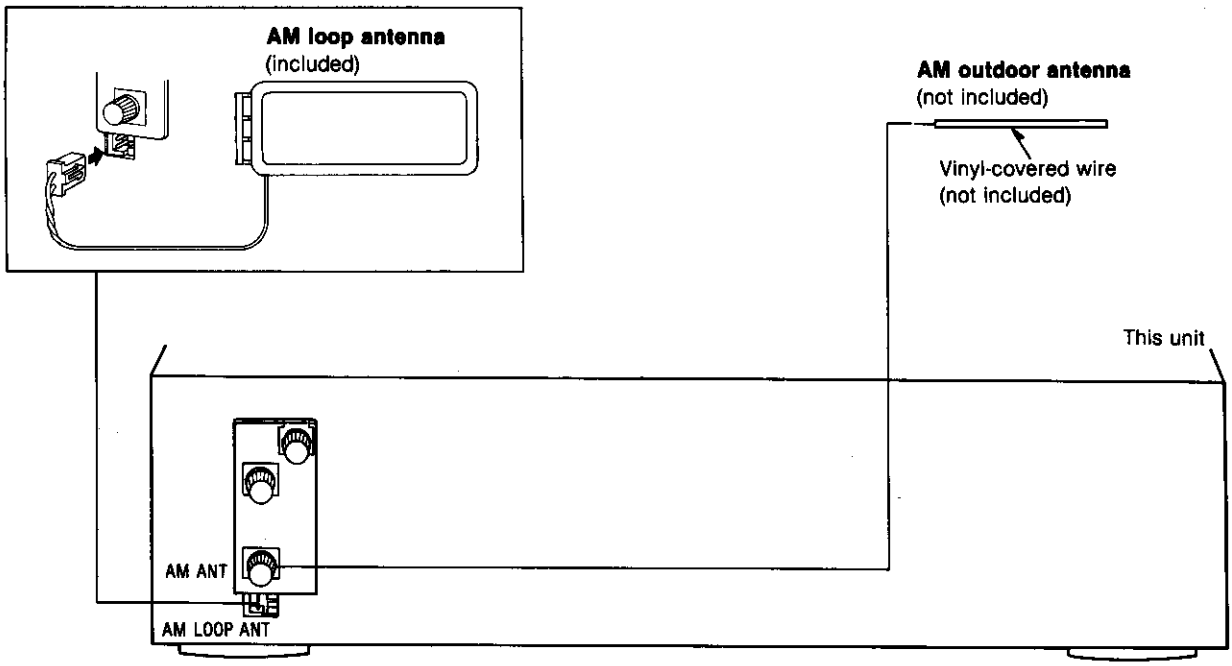
② Twist the shield braid to expose the core wire.



③ Connect the shield braid and the core wire as shown at the right.



AM (MW/LW) antenna connections



AM loop antenna (included)

Connect the AM loop antenna to the AM loop antenna terminals, and mount it vertically to a column, a wall or rack.

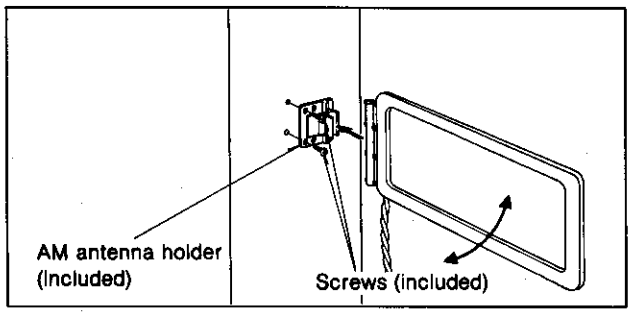
- If this antenna is not properly installed, MW/LW broadcasts will not be received.
- Be sure to connect the AM loop antenna even when an outdoor antenna is used.

Pay attention to the following points when mounting the antenna.

- Do not mount it horizontally (Doing so will impair reception).
- Do not mount it close to power cords, speaker wires or metal surfaces (Doing so will result in noise).
- Do not mount it close to a tape deck. When the tape deck is being used, chirping or beeping sounds may result.

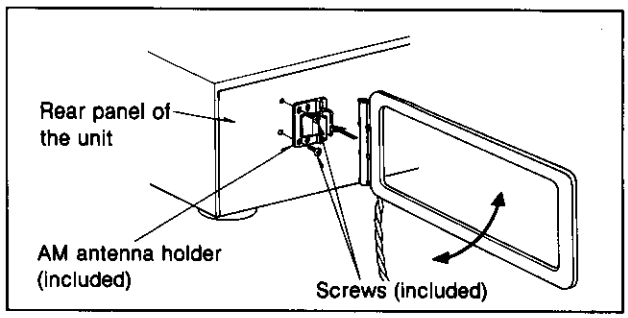
When mounting the antenna to a column, a wall or rack

Mount it vertically.
Move the antenna toward the right or left to find the point of best reception.



When mounting the antenna to the unit

This type of installation may cause impaired reception or result in signal noise. If possible, mount the antenna to a column, a wall or rack.
Move the antenna toward the right or left to find the point of best reception.



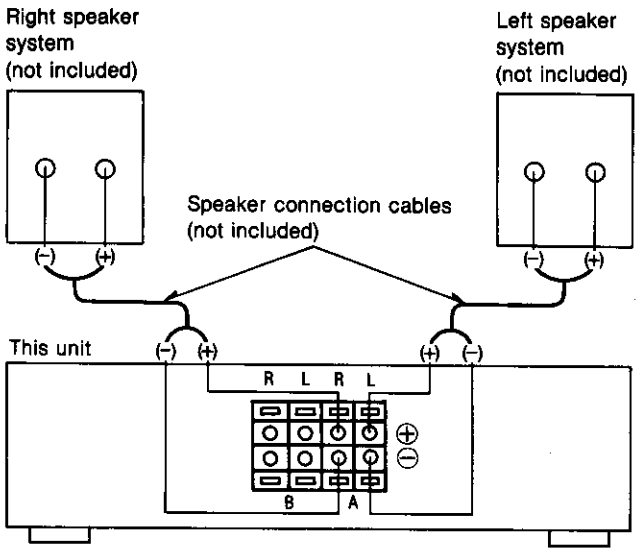
AM outdoor antenna (not included)

An outdoor antenna may be required in a mountainous region, or if this unit is located inside a reinforced-concrete building, etc. Use 5 – 12 m of vinyl-covered wire horizontally at the window, or convenient location.

Note:
When the unit is not in use, disconnect the outdoor antenna to prevent possible damage that may be caused by lightning. Never use an outdoor antenna during an electrical storm.

Connections (continued)

Connection to speaker systems



■ "B" terminals

For connection to a second pair of speakers.

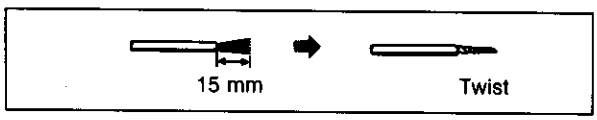
■ Speaker impedance

A and/or B: 8 − 16 Ω

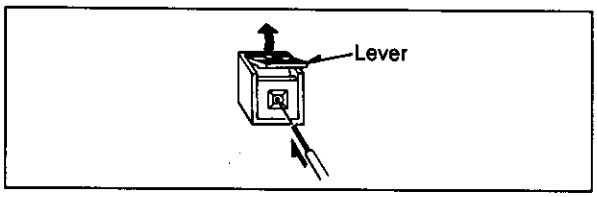
To connect speaker connection cables to terminals

Be sure to only connect positive (+) wires to positive (+) terminals, and negative (−) wires to negative (−) terminals.

① Twist the core of the speaker cables.



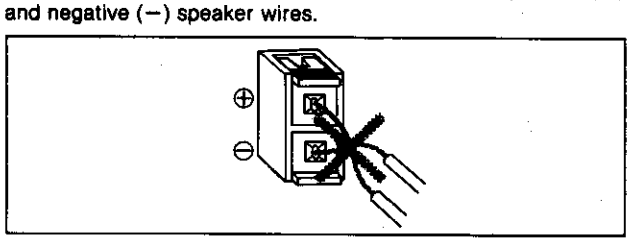
② Open the lever, and insert the core until it can no longer be seen.



③ Close the lever, and pull the cable to assure a proper connection.

Note:

To prevent damage to circuitry, never short-circuit positive (+) and negative (−) speaker wires.

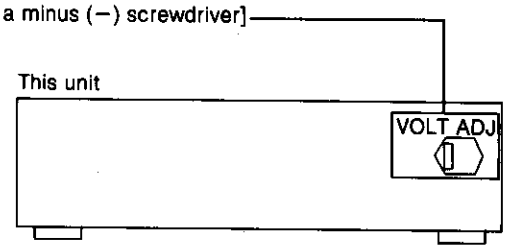


To set the power voltage

(For areas except Australia and N.Z.)

Set the voltage selector to the voltage setting for the area in which the unit will be used.

[Use a minus (−) screwdriver]



Note:

Note that this unit will be seriously damaged if this setting is not made correctly.

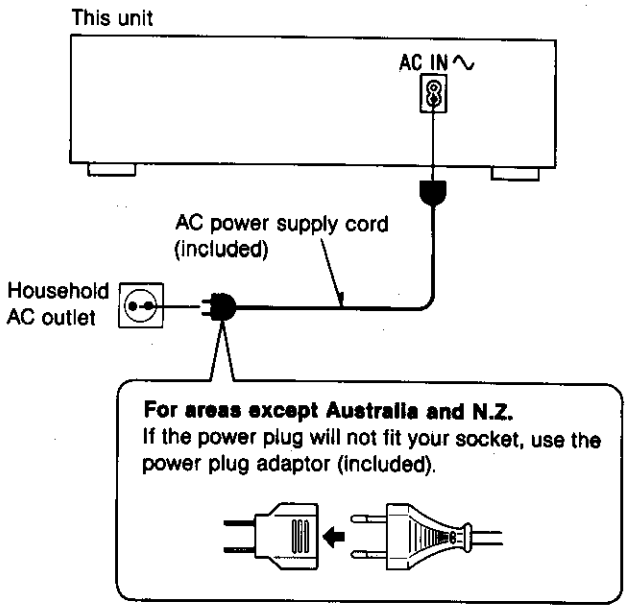
To connect the AC power supply cord

(included)

Connect the AC power supply cord (included) after all other cables are connected.

Note:

Configuration of AC power supply cord and location of AC IN socket differ according to area.

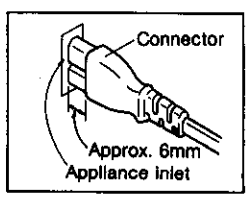

This unit
AC IN
AC power supply cord (included)
Household AC outlet
For areas except Australia and N.Z.
If the power plug will not fit your socket, use the power plug adaptor (included).

For areas except Australia and N.Z.

Insertion of Connector

Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing.

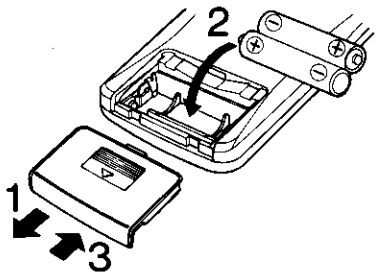
However there is no problem using the unit.



Remote Control Transmitter

Insertion of remote control transmitter batteries

1. **Open the cover.**
2. **Insert the batteries.**
   - Be sure to insert according to the (+) and (−) indications in the battery compartment.
   - Use two UM-4, "AAA" (R03; 1.5 V) size batteries.



3. **Close the cover.**

■ Battery life

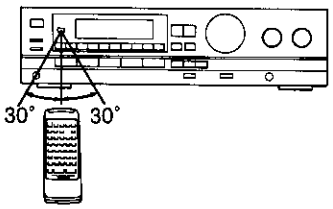
Battery life is about one year. (Battery life may vary depending upon the frequency of use and other conditions of use.)
The batteries should be replaced if the unit cannot be operated even when the remote control transmitter is brought close to the unit.

■ Battery notes

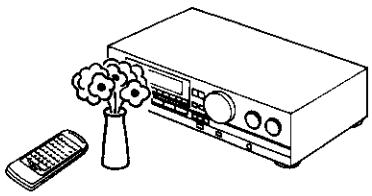
- Be sure that batteries are inserted so that they are placed correctly with respect to the (+) and (−) indications in the battery compartment. If the batteries are not inserted correctly, they may leak and damage the remote control transmitter.
- Do not use rechargeable (nickel-cadmium) type batteries.
- Do not mix old and new batteries, or batteries of different types (carbon and alkaline, etc.)
- If the remote control transmitter is not to be used for a long period of time, take out the batteries and store them in a cool, dark place.
- Remove and dispose of worn-out batteries.
- Never attempt to recharge or short-circuit the batteries, and do not disassemble them or expose them to excessive heat or throw them into a fire.
- If a battery leaks, remove both batteries and dispose of them, and then thoroughly clean the battery compartment before inserting new batteries.

Remote control transmitter operation notes

Use the remote control transmitter within 7 meters.

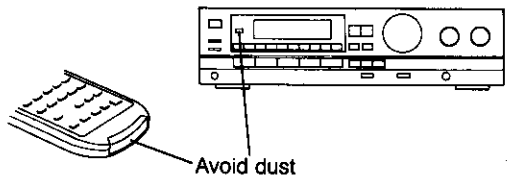


Face it toward the remote control signal receptor of this unit.



(Obstacles should be avoided.)

Be sure the transmitter part of the remote control transmitter and the receptor part of this unit are free from dust.
Excessive dust might prevent reception.

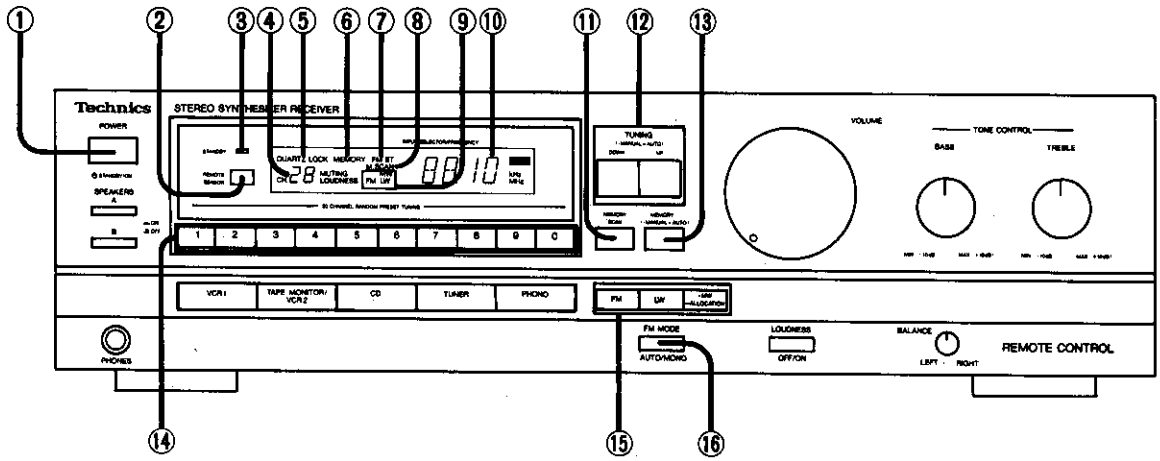


Other notes

1. Do not expose the receptor (on this unit) to direct sunlight or other strong light, because to do so might result in incorrect operation.
2. Do not use a remote control transmitter for a TV set, a VCR or other video component at the same time as this remote control transmitter is being used, because to do so might result in incorrect operation.
3. If this unit is installed in a rack with glass doors, the glass door's thickness or color might make it necessary to use the remote control transmitter a shorter distance from the unit.

Front Panel Controls and Functions

Tuner section



① Power " ⏻ STANDBY/ON" switch (POWER, ⏻ STANDBY/ON)

Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

② Remote control signal receptor (REMOTE SENSOR)

Receives the signals from the remote control.

③ "STANDBY" Indicator (STANDBY)

When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.

④ Channel display

This display shows the channel number selected by one of the preset-tuning buttons.
Also this display shows the channel number for about 3 seconds during memory scan operation.

⑤ Quartz-lock Indicator (QUARTZ LOCK)

This indicator illuminates when the unit is tuned precisely to a broadcast station.

⑥ Memory Indicator (MEMORY)

This indicator illuminates when the memory button is pressed.

⑦ FM stereo Indicator (FM ST)

This indicator automatically illuminates when an FM stereo broadcast is being received.
Note:
It will not illuminate if the FM mode selector is set to the monaural mode.

⑧ Memory scan Indicator (M. SCAN)

This indicator illuminates when the memory scan button is pressed.

⑨ Band Indicators (FM, LW, MW)

Indicates the selected band.

⑩ Input selector/frequency display (INPUT SELECTOR/FREQUENCY)

Displays the selected source or broadcast frequency.

⑪ Memory scan button (MEMORY SCAN)

This button is used to locate a desired broadcast station; each broadcast station is selected for about 3 seconds.

⑫ Tuning buttons (TUNING)

These buttons are used for tuning to the desired broadcast station.

⑬ Memory button (MEMORY)

This button is used when presetting broadcast station frequencies into memory. (Refer to pages 15–16.)

⑭ Preset-tuning buttons (1–0) (30 CHANNEL RANDOM PRESET TUNING)

These buttons are used to preset broadcast frequencies into the memory of this unit and to recall the desired preset stations. (Refer to pages 16–17.)

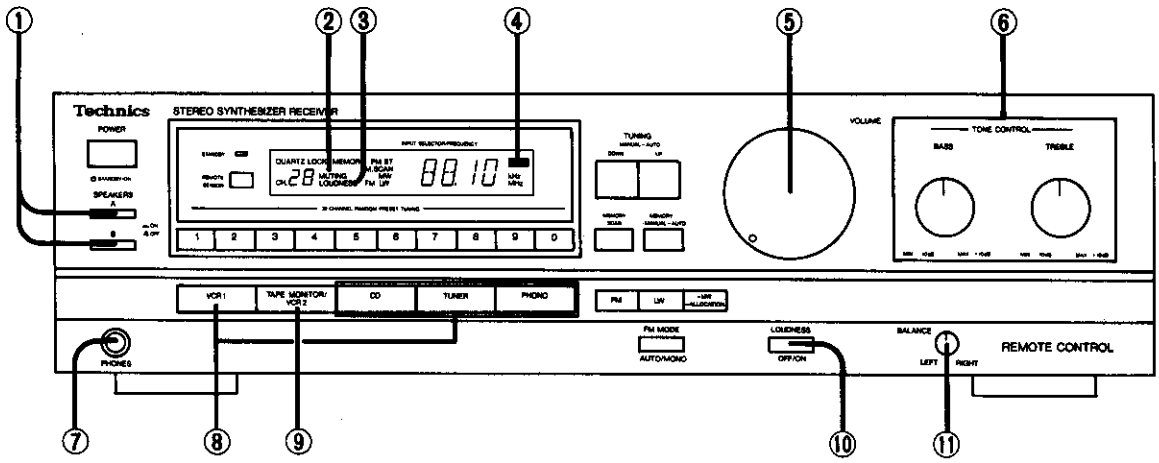
⑮ Band selectors (FM, LW, MW)

FM: Press this button to listen to an FM broadcast.
LW: Press this button to listen to an LW broadcast.
MW: Press this button to listen to an MW broadcast.
ALLOCATION: When the MW button is pressed for about 3 seconds, the MW frequency step will change to 10 kHz per step. (This step is set to 9 kHz before shipment.) In order to return to the original frequency indication, press this button for about 3 seconds again.

⑯ FM mode selector (FM MODE)

This unit automatically switches to the stereo mode when an FM stereo broadcast is received. This selector is used to select the mode (stereo or monaural) of FM broadcast signals.

Amplifier section



① Speaker selectors (SPEAKERS)

These selectors are used to select the speaker system(s) (A and/or B).

② Muting indicator (MUTING)

This indicator will illuminate when the muting button (on the remote control transmitter) is pressed.

③ Loudness indicator (LOUDNESS)

This indicator will illuminate when the loudness button is pressed.

④ Tape indicator (TAPE)

This indicator will illuminate when the tape-monitor/VCR 2 button is pressed.

⑤ Volume control (VOLUME)

⑥ Tone controls (BASS, TREBLE)

The bass control is used to adjust the low-frequency sound range, and the treble control is used to adjust the high-frequency sound range.

⑦ Headphones jack (PHONES)

⑧ Input selector buttons

These buttons are used to select the sound source to be heard, such as a disc, radio broadcasts, etc. The selected sound source is shown on the input selector/frequency display.
The "PHONO" input selector has two functions: when pressed momentarily it selects "PHONO". When pressed and held for about 4 seconds, it de-activates the muting function.

⑨ Tape-monitor/VCR 2 button (TAPE MONITOR/VCR 2)

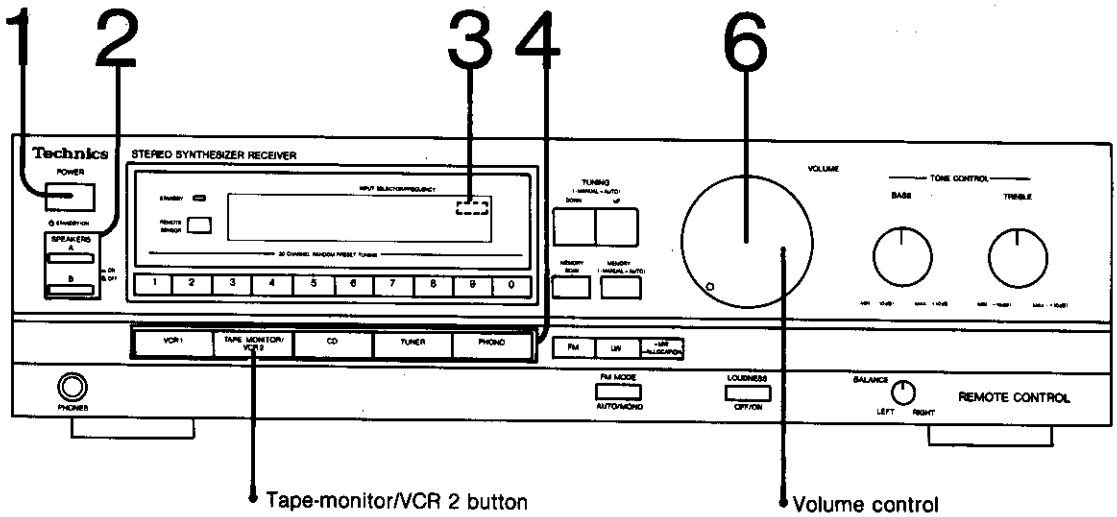
Press this button to listen to a tape or second VCR connected to the "TAPE/VCR 2" terminals.
To listen to some other source, press this button once again (so that the indicator is switched OFF).

⑩ Loudness button (LOUDNESS)

Set to the "ON" position (the loudness indicator will illuminate); when listening to music at low volume. Auditory perception of sound in the low frequency range falls off at low volume, but when the switch is in this position, this deficiency is compensated for, so that the full impact of tha musical performance can be enjoyed.

⑪ Balance control (BALANCE)

Mutual Operations



Before operation, set the volume control to the "0" position.

1 Set the power switch to ON.

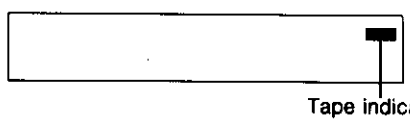
2 Select the "A" and/or "B" speaker system(s) to be used.

When only one speaker system is connected, no sound will be heard if both speaker selectors are pressed.

3 Check to be sure the tape indicator is not illuminated.

To listen to sources other than a tape (or VCR 2), be sure to turn off the tape indicator.

If the tape indicator is illuminated:
Press the tape-monitor/VCR 2 button.



4 Select the sound source.

VCR 1: Press to listen to the playback sound from the VCR connected to the "VCR 1" terminals.
TAPE MONITOR/VCR 2: Press to listen to tape or second VCR. (The tape indicator will illuminate.)

> When listening to tapes is finished, be sure to press the tape-monitor/VCR 2 button to turn off the tape indicator.

CD: Press to listen to compact discs.
TUNER: Press to listen to radio broadcasts.
PHONO: Press to listen to phono discs.

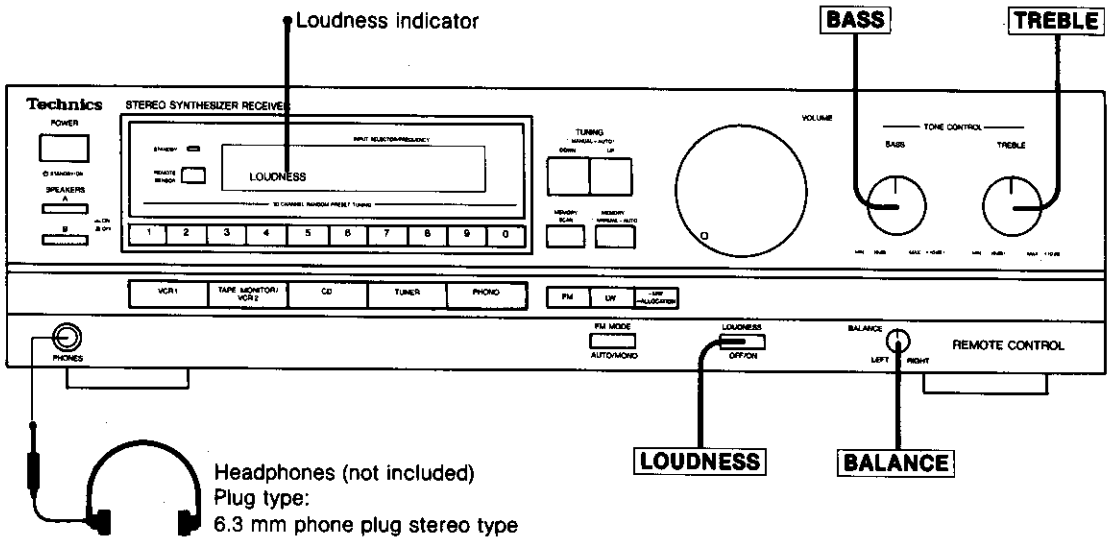
5 Start the sound source.

(Refer to the appropriate operating instructions for details).

6 Adjust the volume level.

After listening is finished

Be sure to reduce the volume level, and switch the power to standby mode from the remote control transmitter or by the power " ⏻ STANDBY/ON" switch of this unit.
Note: The input selection, loudness and the muting settings will be retained (as they were at the time when the power was switched to standby mode) by the memory back-up function.



To adjust to the desired tone quality

BASS

Adjust the low-frequency sound to the desired tone quality.

TREBLE

Adjust the high-frequency sound to the desired tone quality.

To emphasize low-frequency sound

LOUDNESS

Set the loudness switch to "ON" position.

The loudness indicator will illuminate.
(Refer to item ⑩ on page 11.)

To adjust the left/right sound balance

BALANCE

Adjust the balance control.

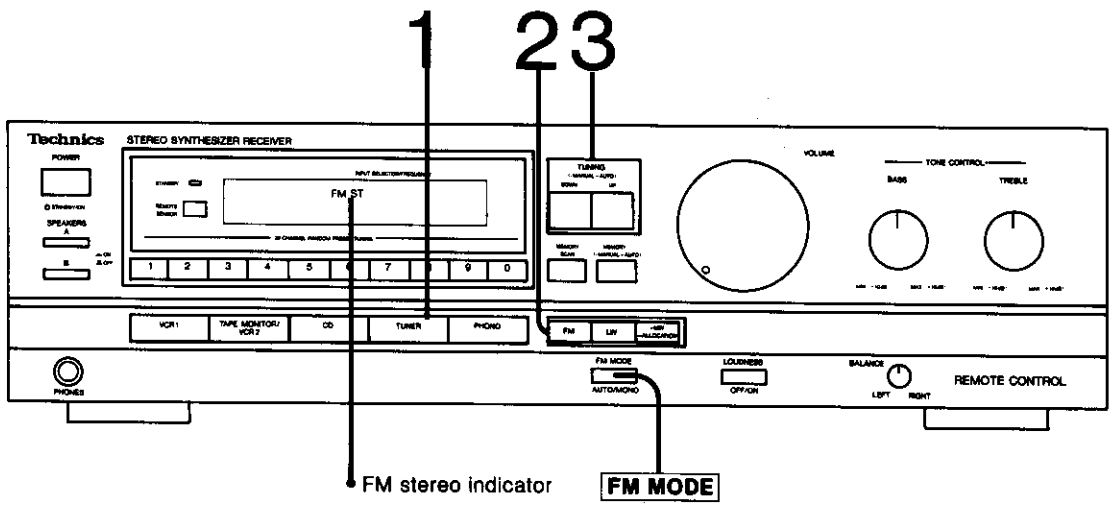
When listening through headphones

- Use the volume control to reduce the volume level, and connect the headphones to the headphones jack.
- If sound from the speakers is not wanted, set the speaker selectors ("SPEAKERS") to the "OFF" position.
- Avoid listening for prolonged periods of time to prevent hearing damage.

Listening to Radio Broadcasts

Manual tuner operation

To listen to broadcasts by using the tuning buttons.



Have you completed the steps 1 – 3 (on page 12) of "Mutual Operations" ?

1 Press the "TUNER" button.

2 Press the "FM", "LW" or "MW" button.
FM: for FM broadcast
LW: for LW broadcast
MW: for MW broadcast
Before presetting MW broadcast stations, press to select the appropriate frequency step for your locality. (Refer to item ⑮ on page 10.)

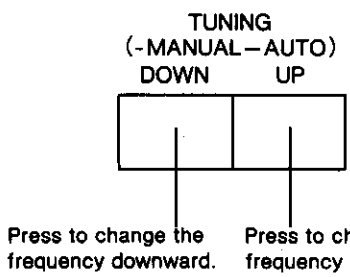
3 Press the appropriate tuning button to tune to the desired broadcast.
(Refer to "Frequency tuning" below.)

If noise is excessive in the FM mode

FM MODE

Press the FM mode selector.
The sound will then be heard in monaural and the FM stereo indicator will not illuminate. If the broadcast signal is weak, or if there is a large amount of interference, sounds can be heard more clearly.

Frequency tuning ("TUNING" buttons)

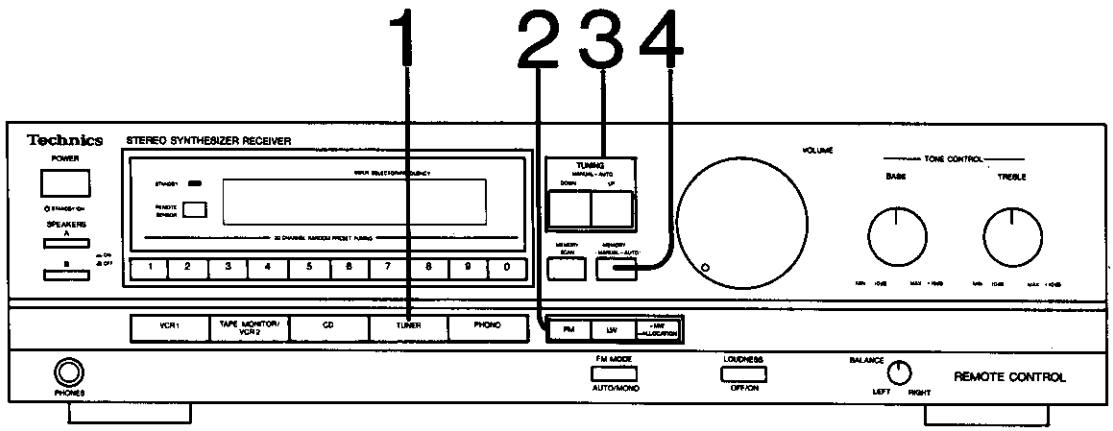


■ Automatic tuning
Press the button. When the frequency indication begins to change, release the button (a broadcasting station will be selected automatically). Repeat this operation until the desired station is found.

■ Manual tuning
Press the button momentarily (frequency will change each time the button is pressed), and tune to the desired frequencies.

Memory presettings

You can program 30 FM/MW/LW radio broadcast stations into memory, so that any desired station may be selected by simply touching one or two buttons. There are two methods for presetting broadcast frequencies in the memory: the automatic method (see below) and the manual method (refer to page 16); select whichever method you prefer.



Automatic memory presetting

When this method is used, the frequencies of the selected broadcast stations are automatically preset (in sequence to higher frequencies) into memory: "channels" 1 to 30 are available for the presetting of FM stations, "channels" 21 to 30 are available for MW stations, and "channels" 27 to 30 are available for LW stations.
When a presetting is made to a channel that has already been preset, the prior presetting will be erased, so if, for example, FM frequencies are preset to channel 1 to 30 and then MW frequencies are preset, the first MW frequency will be preset to channel 21 (thus erasing the FM presetting to channel 21), the second MW frequency will be preset to 22 (erasing FM 22), and so on.

Notes:

- For automatic pressetting in areas where there are fewer than 30 stations for FM broadcasts, the remaining channels will be left unused. The unused channels can be filled by following steps 2 through 5 on page 16.
- For MW/LW broadcasts with extremely strong signal transmissions, the frequency memorized may be slightly different than the correct frequency. If this occurs, make a manual presetting.
- If a new broadcast station is preset into a channel, the broadcast station which was previously entered in that channel will be automatically erased.

Have you completed the steps 1 – 3 (on page 12) of "Mutual Operations" ?

1 Press the "TUNER" button.

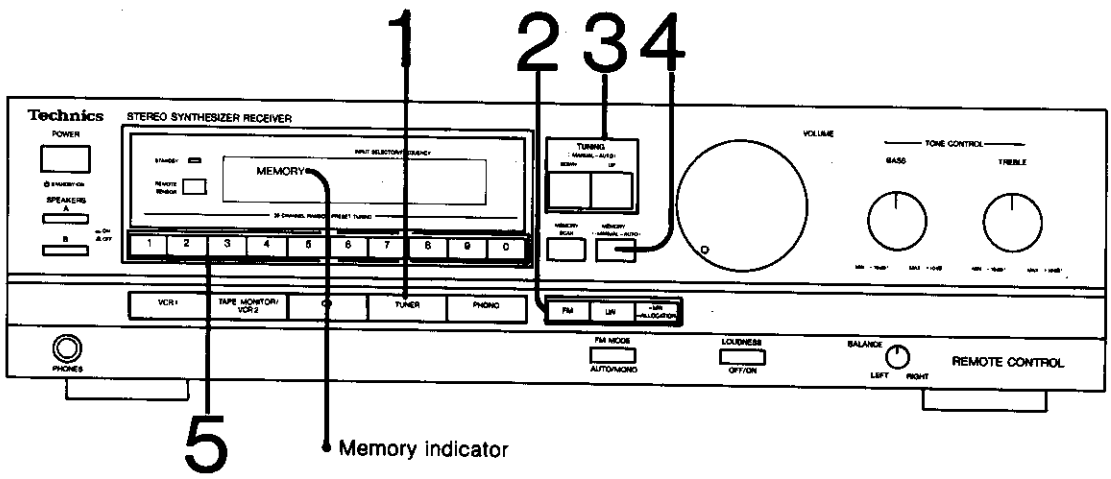
2 Press the "FM", "LW" or "MW" button.
FM: for FM broadcast
LW: for LW broadcast
MW: for MW broadcast
Before presetting MW broadcast stations, press to select the appropriate frequency step for your locality. (Refer to item ⑮ on page 10.)

3 Set to the frequency from which you want to start automatic memory presetting.

4 Press and hold the memory button until the frequency begins to change.
(Automatic memory presetting will start.)

Listening to Radio Broadcasts (continued)

Memory presettings (continued)



Manual memory presetting

Stations can be freely preset to any desired channel.
A maximum of 30 broadcast stations can be memorized.

Have you completed the steps 1 – 3 (on page 12) of "Mutual Operations" ?

1 Press the "TUNER" button.

2 Press the "FM", "LW" or "MW" button.
FM: for FM broadcast
LW: for LW broadcast
MW: for MW broadcast
Before presetting MW broadcast stations, press to select the appropriate frequency step for your locality. (Refer to item ⑮ on page 10.)

3 Press the appropriate tuning button to tune to the desired broadcast.
(Refer to "Frequency tuning", on page 14.)

4 Press the memory button momentarily.
(The memory indicator will illuminate.)
Note:
If the memory button is pressed and held until the frequency begins to change, the automatic memory presetting (See to page 15.) is activated. To stop the automatic memory presetting, press one of the tuning buttons ("TUNING"). Then begin again from step 3.

To cancel the memory function, press the memory button again.

5 Select the desired "CHANNEL".
(Refer to "How to designate preset channels" below.)

6 Repeat steps 2 through 5 to make additional memory presettings; for later reference, note the presettings in the station memory file on page 17.

How to designate preset channels

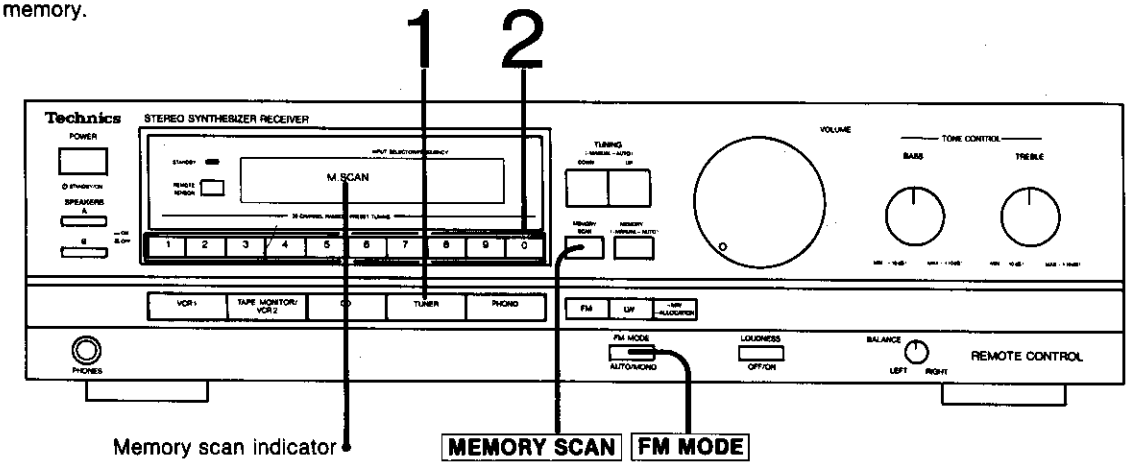
To designate channels 1 – 9:
Press the appropriate (1 – 9) preset-tuning button.
Note: When selecting channel 1, 2 or 3, enter the selection "01", "02" or "03". If only "1", "2" or "3" is pressed, channel access will be delayed by two seconds.

To designate channels 10 – 30:
① Press the button for the "tens" digit (1, 2 or 3).
② Press the button for the "units" digit (1 – 0) within 2 seconds after pressing the first button.

Note:
If the interval between pressing the first button and pressing the second button is more than about 2 seconds, the setting may not be made correctly. If this happens, make the setting once again. When making a memory presetting manually, once again designate the channel to be selected after pressing the memory button.

Using memory preset

To listen to broadcast stations preset into memory.



Have you completed the "Memory presettings" on page 15 – 16 and steps 1 – 3 of "Mutual Operations" on page 12 ?

1 Press the "TUNER" button.

2 Select the desired "CHANNEL".
(Refer to "How to designate preset tuning" on page 16.)

Channel selection using the memory scan button

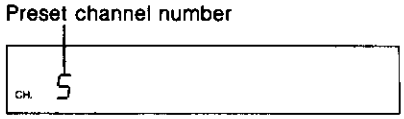
This feature is convenient for use when trying to locate a certain broadcast, or to listen to each station briefly to hear what is being broadcast.

MEMORY SCAN

Press the memory scan button.
(The memory scan indicator will illuminate.)
Each frequency will then be heard (in sequence) for about 3 seconds.

The preset channel number will be displayed in the channel display.

Preset channel number



When the desired broadcast is found:

MEMORY SCAN

Press the memory scan button
(The memory scan indicator will switch OFF.)
The broadcast will continue, even after 3 seconds have passed.

If noise is excessive in the FM mode

FM MODE

Press the FM mode selector.
The sound will then be heard in monaural and the FM stereo indicator will not illuminate. If the broadcast signal is weak, or if there is a large amount of interference, sounds can be heard more clearly.

Back-up memory

The back-up function maintains the preset memory and the most-recent memory (see below) when the power is switched OFF, in the event of a power failure, or if the power cord is disconnected. The memory will be maintained for as long as approximately one month.

Most-recent memory
The most-recent memory system "remembers" the broadcast station last tuned to when the unit was switched OFF. That station will be automatically tuned to when the power is switched ON.

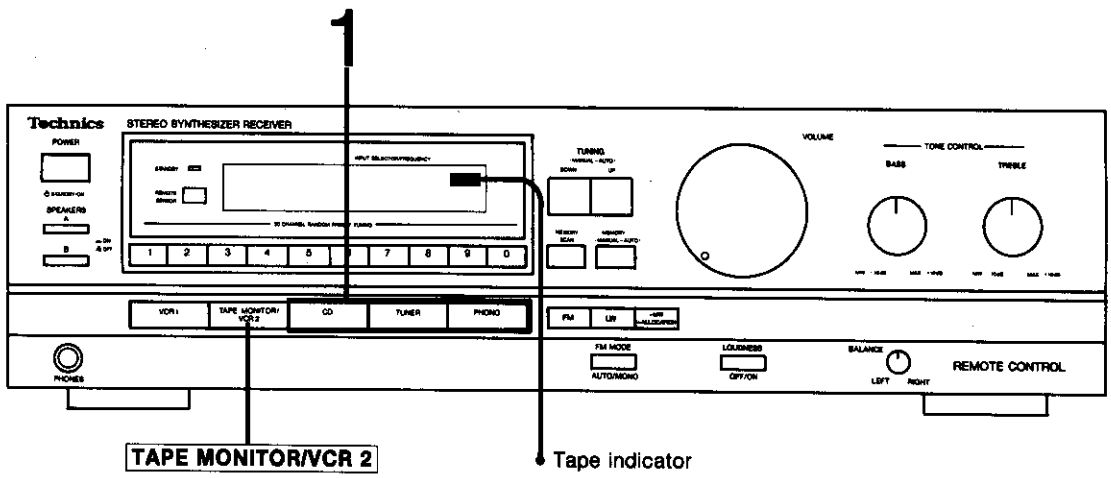
If frequency presettings are accidentally erased from the back-up memory

Make the frequency presettings (on page 15 or 16) once again. The power cord should remain connected for one hour or more for the memory back-up to be effective.

Station Memory File (Use this file to record your memory selections.)

CH. 1	CH. 2	CH. 3	CH. 4	CH. 5	CH. 6	CH. 7	CH. 8	CH. 9	CH. 10	CH. 11	CH. 12	CH. 13	CH. 14	CH. 15
CH. 16	**CH. 17**	**CH. 18**	**CH. 19**	**CH. 20**	**CH. 21**	**CH. 22**	**CH. 23**	**CH. 24**	**CH. 25**	**CH. 26**	**CH. 27**	**CH. 28**	**CH. 29**	**CH. 30**

Recording



Tape recording

To record on the tape deck connected to the "TAPE/VCR 2" terminals.
Before recording, prepare the tape deck for recording (recording level adjustment, etc.).
See the tape deck's operating instructions for details.

Have you completed the steps 1 – 3 (on page 12) of "Mutual Operations" ?

1 Select the sound source to be recorded.

2 Begin recording.
Follow your tape deck's operating instructions.

3 Begin the sound source to be recorded.

To check the sound recorded while recording is being made

With a tape deck with 3 heads, it is possible to check the sound recorded on the tape.

TAPE MONITOR/VCR 2

Press the tape-monitor/VCR 2 button on this unit (the tape indicator will illuminate), and set the monitor button on the tape deck to "TAPE".

VCR (VCR 1) recording (Audio only)

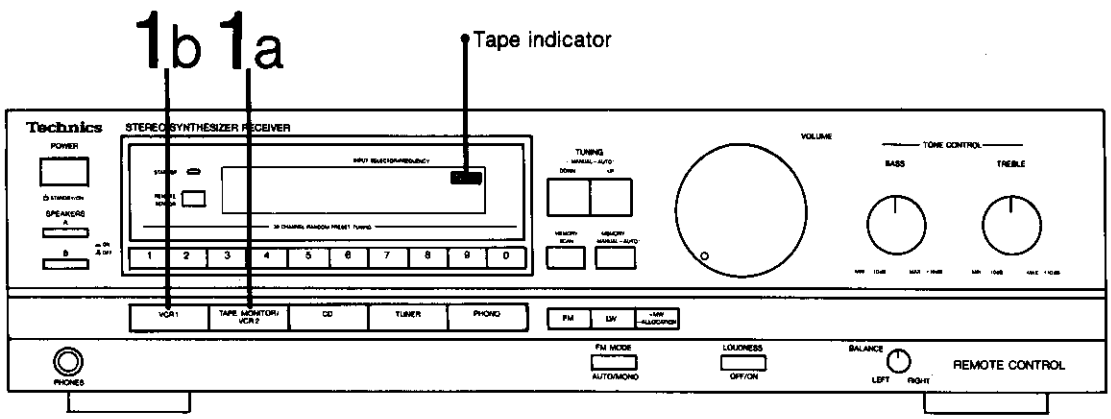
To record on the VCR connected to the "VCR 1" terminals.
Before recording, prepare the VCR for recording (recording level adjustment, input selector setting, etc.).
See the VCR's operating instructions for details.

Have you completed the steps 1 – 3 (on page 12) of "Mutual Operations" ?

1 Select the sound source to be recorded.

2 Begin recording.
Follow your VCR's operating instructions.

3 Begin the sound source to be recorded.



Tape-to-tape recording (Audio only)

To record from the tape deck connected to the "TAPE/VCR 2" terminals to the VCR connected to the "VCR 1" terminals and vice versa.

Before recording, prepare the VCR (or tape deck) for recording (recording level adjustment, input selector setting for VCR, etc.). See the operating instructions of each unit for details.

Have you completed the steps 1 – 3 (on page 12) of "Mutual Operations" ?

1a To record from the tape deck to the VCR

Press the tape-monitor/VCR 2 button.
The tape indicator will illuminate.

Note:
You may select any of the input selectors other than VCR 1.

1b To record from the VCR to the tape deck

Press the "VCR 1" button.

2 Begin recording on VCR (or tape deck) and playback of the tape deck (or VCR).

Follow the operating instructions of each unit.

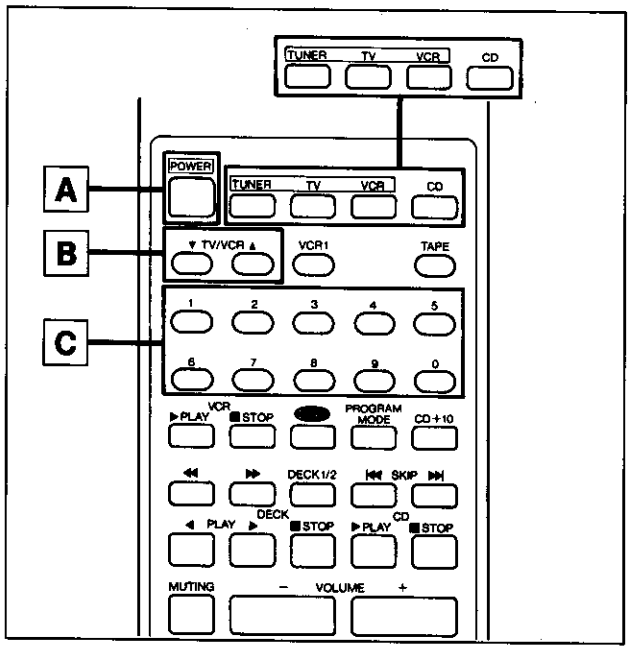
If a second VCR is connected to the "TAPE/VCR 2" terminals, tape-to-tape recording (audio only) is possible by following the above procedures.

Remote Control Operation

This remote control can be used to operate units manufactured by this company other than this receiver unit, including CD players/changers, tape decks and also TVs and VCRs.
For detailed information concerning operation steps etc., please refer to the appropriate page for each unit manufactured by this company (other than this receiver unit) including CD players/changers, tape decks and also TVs and VCRs.
Furthermore, the remote control may not operate the unit in some cases due to differences in the remote control signal. (See page 22.)

Before Use

In order to minimize the number of buttons on the remote control, buttons [A], [B] and [C] each perform a variety of functions.
In order to ensure correct operation, be sure to carefully read the explanations provided below.

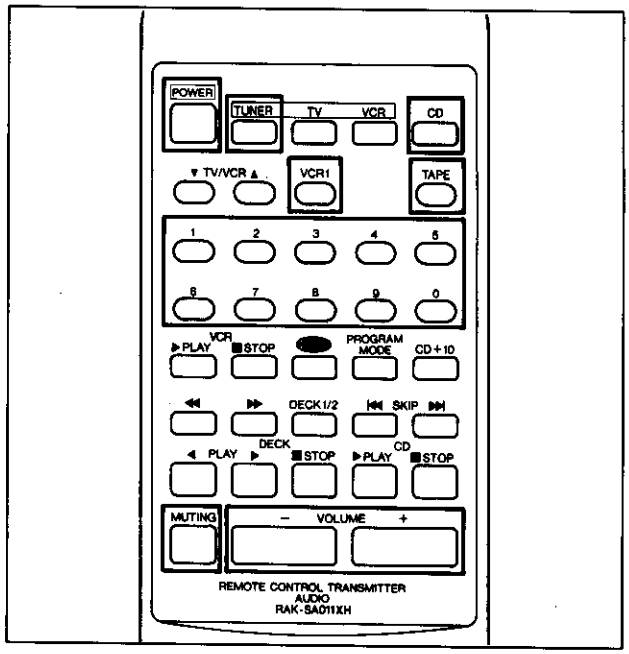


[A] Power button
This button is used to switch the power of the receiver, TV, and VCR on and off.

[B] TV/VCR channel select buttons
These buttons are used to change the channel for both the TV and the VCR.

[C] Numeric buttons
These buttons are used for the following two functions.
(1) To select a preset channel on the receiver.
(2) To select a disc or track on the CD player/changer.

NOTE
To operate, first press the [TUNER], [TV], [VCR], or [CD] button on the remote control to select the appropriate mode for the unit you wish to operate, and then proceed.



To control the receiver

[TUNER]
Press this button to switch the input of the receiver and the operation mode of the remote control to the tuner.

[POWER]
Press this button to turn the unit ON and OFF. When this button is used, be sure to first press "TUNER" button.

[1] – [0]
Press these buttons to select the desired preset channel.
When these buttons are used, be sure to first press the "TUNER" button.

To designate channels 1–9:
Press the appropriate (1–9) preset-tuning button.

To designate channels 10–30:
① Press the button for the "tens" digit (1, 2 or 3).
② Press the button for the "units" digit (1–0) within 2 seconds after pressing the first button.

NOTE
If the interval between pressing the first button and pressing the second button is more than about 2 seconds, the setting may not be made correctly. If this happens, make the setting once again.

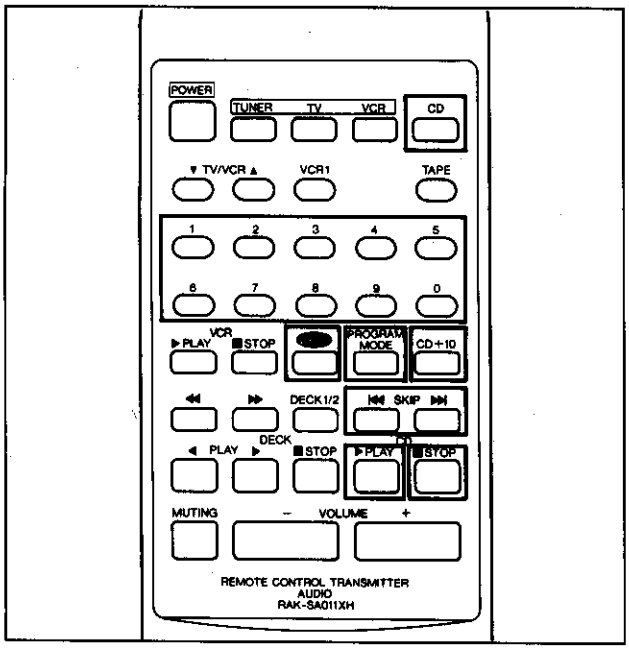
[CD]
Press this button to switch the input of the receiver to compact disc mode.

[TAPE]
Press this button to switch the input of the receiver to the tape deck.

[VCR 1]
Press this button to select the "VCR 1" input selector on the receiver.

[MUTING]
Press this button to temporarily reduce the volume level.
The volume level is attenuated by 20 dB (approx. 1/10).
Press once again to return to the previous volume level.

[– VOLUME +]
Press one of these buttons to adjust the volume level.



To control the compact disc player

CD

Press this button to switch the numeric buttons to control the CD player/changer.

NOTE

In this case, the input of the receiver also switches to compact disc mode.

DISC

If a Technics CD changer is used in combination with this unit, the disc to be played can be selected by first pressing this button and then pressing the appropriate numeric button (1 – 5).

1 – 0, CD+10

Press these buttons to select the desired track.
Playback begins from the track selected.
When these buttons are used, be sure to first press the "CD" button.

Tracks 1–9:

Press the appropriate numeric button 1 – 9 directly.

To select a two-digit track number over 10:

Press the CD+10 button the necessary number of time to select the "tens" digit, and then one of the 1 – 0 buttons to select the "units" digit.

PROGRAM MODE

Press this button to select the desired play mode ("program mode" or "sequential mode"). If you have a Technics changer, you can select "delete mode".

⏮ SKIP ⏭

Press one of these buttons briefly to move the pick-up to the beginning of a specific track.

▶ PLAY

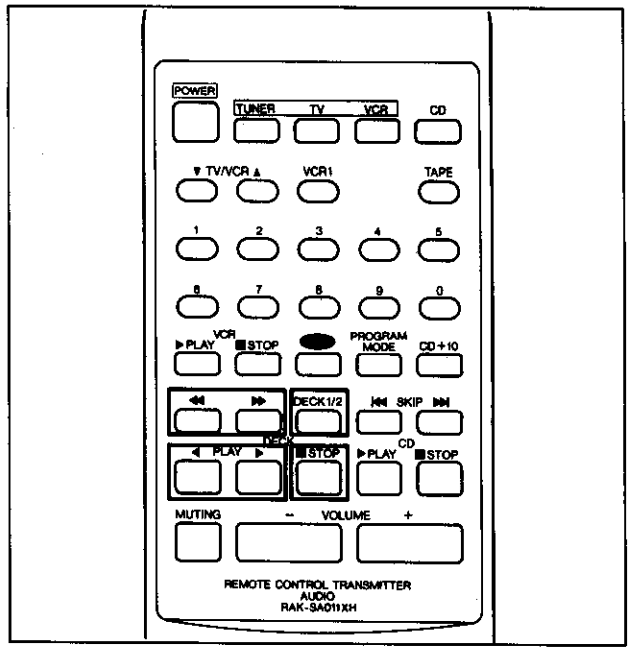
Press this button to start play.

■ STOP

Press this button to stop play.

NOTE

When operating a compact disc player with a remote control sensor, face this remote control transmitter toward the remote control sensor of the compact disc player.



To control the tape deck

DECK 1/2

Press this button to select the deck ("DECK 1" or "DECK 2") to be controlled.

◀ PLAY ▶

Press one of these buttons to begin playback or recording, pressing the button corresponding to the side of the tape to be played back (or recorded).
▶ : For the "forward (A)" side of the tape
◀ : For the "reverse (B)" side of the tape

NOTE

Depending on which Technics tape deck is used in combination with this unit, tape deck 1 might be the "A"-side playback-only type.

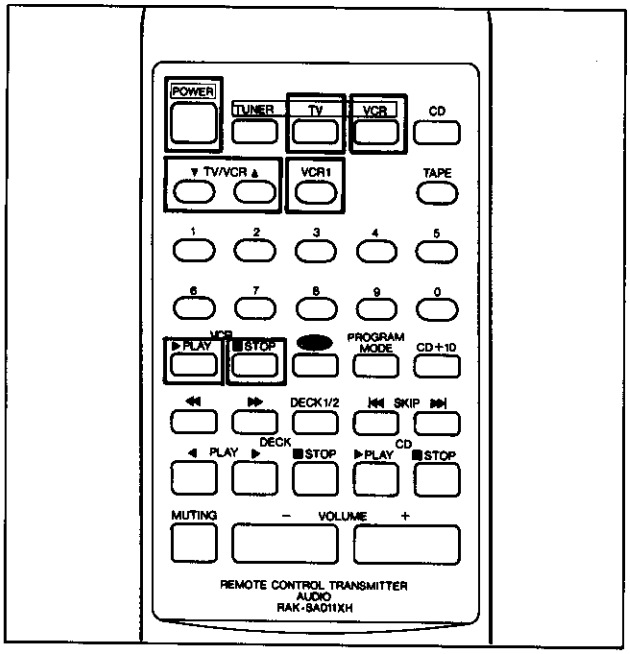
◀◀ , ▶▶

Press one of these buttons to advance or rewind the tape while the unit is in the stop mode.
Press one of these buttons to select the desired tune while the unit is in the play mode. (Only applicable to a Technics tape deck with the "music select" functions.)

■ STOP

Press this button to stop tape movement.

Remote Control Operation (continued)



To control TV

NOTE

To perform the following operations, aim the remote control at the TV.

TV

Press this button to set the power button and TV/VCR channel select buttons to the TV mode.

POWER

Press this button to switch the power ON and OFF.
When this button is used, be sure to first press "TV" button.

▼ TV/VCR ▲

Press these buttons to change the channel on the TV.

To control VCR

NOTE

When pressing the **POWER**, **▼ TV/VCR ▲**, **▶ PLAY**, and **■ STOP** buttons, aim the remote control at the VCR.

VCR

Press this button to switch the power button and TV/VCR channel select buttons to the VCR mode.

VCR 1

Press this button to change the input selector on the receiver to the "VCR 1" position.

POWER

Press this button to switch the power ON and OFF.
When this button is used, be sure to first press "VCR" button.

▼ TV/VCR ▲

Press these buttons to change the channel on the VCR.

▶ PLAY

Press this button to begin play on the VCR.

■ STOP

Press this button to stop play on the VCR.

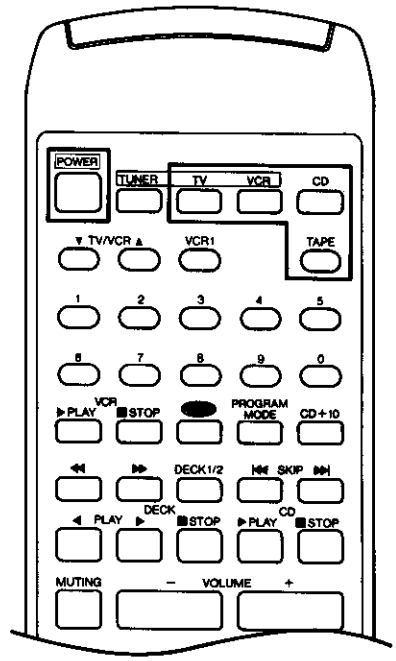
To operate VCR 2, set the input selector on the receiver to the VCR 2 position.

NOTE

If you operate a TV, VCR, CD player (or CD changer) or a tape deck using this remote control, the unit may fail to operate due to the differing nature of the remote control signal.

If the remote control fails to operate:

It is necessary to reprogram the signal within the remote control by following this simple procedure.



For CD player (or CD changer) operation

Press POWER and CD simultaneously, hold for 2 seconds.

For TV operation

Press POWER and TV simultaneously, hold for 2 seconds.

For VCR operation

Press POWER and VCR simultaneously, hold for 2 seconds.

For Tape deck operation

Press POWER and TAPE simultaneously, hold for 2 seconds.

To restore the previous memory contents, carry out the same operations one more time.

Depending on the model, there may be cases where operation is still not possible even if the remote control signal is switched over due to differences in frequency range characteristics.

Troubleshooting Guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.
If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the directory of Authorized Service Centers (enclosed with this unit) to locate a convenient service center, or consult your Technics dealer for instructions.

Problem	Probable cause(s)	Suggested remedy
While listening to FM broadcasts		
An unusual hissing noise is heard when listening to the broadcast in stereo, but not heard when listening monaurally.	A slight noise may be heard because the method used for modulation of FM stereo broadcasts is different than that used for monaural broadcasts.	• Try reducing the treble sound by using the treble control. • Set the FM mode selector to the monaural position. (Note that the broadcast will then be heard as monaural sound.)
Noise is excessive in both stereo and monaural broadcasts.	Poor location and/or direction of the antenna. Transmitting station is too far away.	• Try changing the location, height and/or direction of the antenna. • If an indoor antenna is being used, change to an outdoor antenna. • Try using an antenna with more elements.
The FM stereo indicator or the quartz lock indicator flickers, without completely illuminating.	Poor location and/or direction of the antenna. Transmitting station is too far away.	• Try changing the location, height and/or direction of the antenna. • If an indoor antenna is being used, change to an outdoor antenna. • Try using an antenna with more elements.
Excessive distortion in the sound of stereo broadcasts.	Nearby building or mountain. [Multipath distortion is being caused by the mutual interference of broadcast signals received directly from the transmitting station (direct waves) and signals being reflected from nearby buildings or mountains (reflected waves).]	
Sound is distorted, "popping" noise is heard, and/or the volume level becomes low.	Broadcast signals are being disturbed by nearby automobile traffic or airplanes.	• Relocate the antenna and the connection wires to a place farther away from where automobiles pass.
While listening to AM broadcasts		
An unusual "beat" sound is heard.	Unit is being used at the same time as the television set.	• Turn off the television set, or use this unit farther away from it.
	Interference from adjacent broadcast signal.	• Try reducing the treble sound by using the treble control.
A low-pitched "hum" sound is heard when the broadcast is tuned.	The AM loop antenna connection wires are too close to the power cord.	• Place the antenna connection wires and the power cord farther apart.
	The power supply frequency from the power cord is modulated and heard from the speakers.	• Install a special outdoor antenna.
A strange hissing noise is produced continuously or intermittently.	Caused by the "discharge phenomenon" and the "oscillation phenomenon" of electric appliances (such as fluorescent lights, TV, small series-type motors, rectification equipment, etc.).	• Try placing this unit farther away from such equipment. • Install noise-prevention equipment on this unit or on the electric appliance.

Troubleshooting Guide (continued)

Problem	Probable cause(s)	Suggested remedy
Problems noted at all times		
Power will not switch ON.	The power cord plug is not completely inserted.	• Confirm that the power cord plug is connected completely.
No sound is heard when the power is switched ON.	The speaker selectors are incorrectly set to the "OFF" position.	• Set to the "ON" position.
	The incorrect input selector has been pressed.	• Check to be sure that the correct selector is pressed.
	Tape indicator is illuminated.	• Press the tape-monitor/VCR 2 button to turn off the tape indicator.
	Connections are incomplete or incorrect to the speaker systems, etc.	• Check to be sure that all connection wires are correctly connected.
Sound stops during a performance, or no sound is heard when the power is switched ON.	The protection circuitry has functioned because the positive and negative speaker connection wires are "shorted" or speaker systems with an impedance less than the indicated rated impedance of this unit are used.	• Switch off the power, and, after determining and correcting the cause, switch on the power once again. • Use a speaker system of the proper impedance rating.
When listening to stereo sound, the sound lacks depth (i.e. thin bass, tinny sound.)	One of the speakers is connected out of phase [(+) → (−), (−) → (+)].	• Reconnect the speakers, maintaining proper polarity [i.e., (+) → (+), (−) → (−)].
When listening to stereo sound, the left and right sounds are reversed.	The left and right speaker connections or source connections are reversed.	• Check all connections and correct them if necessary.
A low-pitched noise ("hum" or "buzz") is heard.	The power cord or a fluorescent light, etc., is near the connection wires.	• Try separating this unit as far as possible from the electric appliance.
Sound is not heard from one of the speaker systems.	The speaker wires are disconnected.	• Check and correct the connections of the speaker wires.
	The balance control is set too far to one side.	• Set so that sounds are heard at the center, between the speaker systems.
While using the remote control transmitter		
The remote control transmitter does not function.	Batteries are incorrectly placed.	• Insert the batteries so that the positive (+) and negative (−) polarities are correct.
	The remote control transmitter batteries are consumed.	• Replace them with new batteries.
	There is an obstruction between the remote control transmitter and this unit.	• Remove the obstruction.
	The remote control transmitter is not correctly facing this unit.	• Face the remote control transmitter correctly toward this unit.

Maintenance

To clean this unit, use a soft, dry cloth.
For very dirty surfaces, dip a soft cloth in a weak soap-and-water solution and wring well. After cleaning, wipe with a soft, dry cloth.

Never use alcohol, paint thinner, benzine, or a chemically treated cloth to clean this unit.
Such chemicals may damage the unit's finish.

Technical Specifications (DIN 45 500)

■ AMPLIFIER SECTION

Power output	
DIN 1 kHz (T.H.D. 1%)	2×50 W (8 Ω)
Total harmonic distortion	
rated power at 40 Hz–20 kHz	0.5% (8 Ω)
half power at 1 kHz	0.03% (8 Ω)
Intermodulation distortion	
rated power at 60 Hz: 7 kHz = 4:1, SMPTE	0.5% (8 Ω)
Power bandwidth	
both channels driven, −3 dB	10 Hz–40 kHz (8 Ω)
Damping factor	40 (8 Ω)
Input sensitivity and impedance	
PHONO	3 mV/47 kΩ
CD, VCR 1, TAPE/VCR 2	200 mV/22 kΩ
PHONO maximum input voltage (1 kHz, RMS)	150 mV
S/N at rated power (8 Ω)	
PHONO	70 dB (IHF, A: 80 dB)
CD, VCR 1, TAPE/VCR 2	80 dB (IHF, A: 90 dB)
Frequency response	
PHONO	RIAA standard curve ±0.8 dB (30 Hz–15 kHz)
CD, VCR 1, TAPE/VCR 2	10 Hz–40 kHz (±3 dB)
Tone controls	
Bass	50 Hz, +10 dB to −10 dB
Treble	20 kHz, +10 dB to −10 dB
Loudness control (volume at −30 dB)	50 Hz, +9 dB
Output voltage	
VCR 1 OUT, TAPE/VCR 2 REC (OUT)	200 mV
Channel balance, 250 Hz–6.3 kHz	±1 dB
Channel separation	55 dB
Headphones output level and impedance	430 mV/330 Ω
Load impedance	
A and/or B	8 Ω–16 Ω

■ FM TUNER SECTION

Frequency range	87.50–108.00 MHz
Sensitivity	
S/N 30 dB	1.5 µV (75 Ω)
S/N 26 dB	1.3 µV (75 Ω)
S/N 20 dB	1.2 µV (75 Ω)
IHF usable sensitivity	1.5 µV (IHF'58, 75 Ω)
IHF 46 dB stereo quieting sensitivity	22 µV/75 Ω
Total harmonic distortion	
MONO	0.2%
STEREO	0.3%
S/N	
MONO	60 dB (75 dB, IHF)
STEREO	58 dB (71 dB, IHF)
Frequency response	20 Hz–15 kHz, +1 dB to −2 dB
Alternate channel selectivity	
±400 kHz	65 dB
Capture ratio	1.0 dB
Image rejection at 98 MHz	40 dB
IF rejection at 98 MHz	70 dB
Spurious response rejection at 98 MHz	70 dB
AM suppression	50 dB
Stereo separation	
1 kHz	40 dB
Carrier leak	
19 kHz	−55 dB (−60 dB, IHF)
38 kHz	−50 dB (−55 dB, IHF)
Channel balance (250 Hz–6.3 kHz)	±1.5 dB
Limiting point	1.2 µV
Bandwidth	
IF amplifier	180 kHz
FM demodulator	1000 kHz
Antenna terminals	75 Ω (unbalanced)

■ AM TUNER SECTION

Frequency range	
MW	531 kHz–1602 kHz (9-kHz steps) 530 kHz–1600 kHz (10-kHz steps)
LW	153 kHz–279 kHz
Sensitivity	
MW	20 µV, 330 µV/m
LW	45 µV
Selectivity	
MW (at 999 kHz)	55 dB
LW (at 252 kHz)	55 dB
Image rejection	
MW (at 999 kHz)	40 dB
LW (at 252 kHz)	40 dB
IF rejection	
MW (at 999 kHz)	55 dB
LW (at 252 kHz)	55 dB

■ GENERAL

Power consumption	
(For areas except Australia and N.Z.)	170 W
(For Australia and N.Z.)	130 W
Power supply	
(For areas except Australia and N.Z.)	AC 50 Hz/60 Hz, 110–127 V/220–240 V
(For Australia and N.Z.)	AC 50 Hz/60 Hz, 230–240 V
Dimensions (W × H × D)	430 × 125 × 305 mm
Weight	6.5 kg

Notes:

1. Specifications are subject to change without notice. Weight and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

Memo

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RQT2060-G

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